



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

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25 June 2012

Richard Crivello
Colonel, Engineering Commander
Department of the Army
Headquarters Camp Edwards
Beaman Street Building 3468
Camp Edwards, MA 02542

RE: Request to modify EPA SOW to Administrative Order SDWA I-97-1030 (A02) to allow use of M116A1 Hand Grenade Simulator on Camp Edwards

Dear COL Crivello:

This letter is in response to your request letter dated 19 January 2012. In that letter, the Massachusetts Army National Guard (MAANG) requested the United States Environmental Protection Agency (EPA) modify the Scope of Work (SOW) to Administrative Order SDWA I-97-1030 (A02) issued pursuant to Section 1431 (a) of the Safe Drinking Water Act with respect to the Massachusetts Military Reservation (MMR). Specifically, the MAANG requested approval to resume training permanently using the reformulated pyrotechnic device M116A1 hand Grenade (DODIC L601) on Camp Edwards.

Background:

In its efforts at protecting the sole source Cape Cod Aquifer, EPA issued four administrative orders, including three pursuant to the Safe Drinking Water Act. The second Administrative Order, known as AO2, was issued in May 1997. Among other provisions, AO2 includes the suspension of particular military training activities at the Training Range and Impact Area of MMR (AO2, Scope of Work, Section II.A.1). Among the activities suspended were "[a]ll use of pyrotechnics at or near the Training Range and Impact Area". (AO2, Scope of Work, Section II.A.1.f).

AO2 also includes provision for modifying Scope of Work Requirements based on specified demonstrations. (Paragraph 125). If a Respondent to AO2 believes that a modification to the Work specified pursuant to AO2 is necessary and appropriate, the Respondent may petition EPA for a determination on the potential modification. Included among the basis for such a modification is "documentation demonstrating that the use of a ... pyrotechnic that is suspended pursuant to this Order does not present a threat of harm to the public or the environment that would warrant its continued suspension under this Order".

EPA Findings:

Per the project note attached to the 26 October 2009 petition, Testing of Artillery and Grenade Simulators at Camp Edwards (dated 13 August 2009); the M116A1 contains the following constituents:

- 40 grams Flash Composition
 - 8% Flaked Aluminum
 - 92% Black Powder
- 41 milligrams Fuse Igniter Charge
 - 88% Potassium Chlorate
 - 10% Charcoal
 - 2% Dextrin
- 2 grams Primer Paste
 - 67% Potassium Nitrate
 - 14% Charcoal
 - 10% Binder Cell Nitrate
 - 9% Sulfur
- Safety Fuse
 - Cotton
 - Black Powder
 - Primer Paste
- Ignition Blasting Fuse Assembly (M3A1)
 - Steel Wire
 - 67mg Cadmium Chromate (49% Cd, 23% Cr)
- Ferrule
 - Steel Wire
 - 67mg Cadmium Chromate (49% Cd, 23% Cr)
- 0.3 grams Copper Alloy Ignition Charge Wire Assembly
 - 95% Copper
 - 4.92% Zinc
 - 0.05% Iron
 - 0.03% Lead

Some of the constituents described above can be harmful to public health and the environment depending on the quantity. In a letter dated 12 January 2010, MANG has indicated that they will use no more than 1000 grenades per year in an area of 1 acre in size at MMR. EPA finds that given the number of items to be used by the MANG in a given year, the size of the area where the items will be used and the amount of contaminants contained in the M116A1 grenade, EPA does not expect that the use of these items in this manner will present a threat to the sole source aquifer.

On 24 March 2010, EPA modified EPA Docket No. SDWA I-97-1030 for Limited Authorization for M116A1 Hand Grenade Simulator (DODIC L601) Training. This two year limited authorization concluded on 7 June 2012. On 25 June 2012, the MAANG provided a Final M116A1 Hand Grenade Simulator Summary Report. This report summarizes the use of the subject grenade simulator over this two year period and provides sampling results for the constituent of concern,

chlorate. The results from the sampling events were below the soil screening levels and detection limit for this compound.

Modification:

Based on the above discussion and findings, EPA hereby modifies AO2 as specified below.

1. Modified AO2, Appendix A (Scope of Work), ¶II.A.1.f, as follows:

f. All use of pyrotechnics at or near the Training Range and Impact Area except as provided in Appendix D:

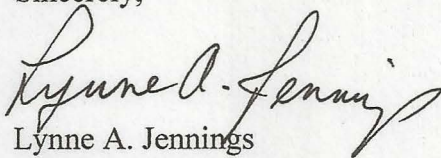
2. Newly added Appendix D revision 1 to AO2 now allows an authorization to use one type of pyrotechnic device, the M116A1 Hand Grenade (DODIC L601). Effective immediately, EPA hereby modifies AO2 to append Appendix D revision 1 at the end of AO2 and Appendix D revision 1 is now fully enforceable as a part of AO2.

This action does not modify any other provision of the Statement of Work or AO2. This modification may itself be modified or withdrawn by EPA at any time on twenty-four hours written notice. This modification is effective immediately.

As previously noted, the MAANG or any other Agency must not use any range in a manner that interferes with or slows down the Army's ongoing investigations and cleanup pursuant to EPA's Administrative Order No. SDWA 1-2000-0014 (AO3).

Please do not hesitate to contact me at (617) 918-1210 or Desiree Moyer at (617) 918-1257 should you have any questions.

Sincerely,



Lynne A. Jennings
MMR Team Leader

cc: M. Begley/EMC
L. Pinaud/MassDEP
M. Ciaranca/E&RC
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SCOPE OF WORK
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

Appendix D Revision 1 to
EPA Region I Administrative Order
SDWA I-97-1030

I. INTRODUCTION AND PURPOSE

This Authorization for the use of one type of pyrotechnic device authorizes Respondents to conduct training at Massachusetts Military Reservation (MMR) on Cape Cod, Massachusetts. This Authorization is appended to the Administrative Order, Docket Number SDWA I-97-1030 (the "Order"), issued by the United States Environmental Protection Agency (EPA) regarding the Training Range and Impact Area at MMR, and specifies the conditions under which Respondents may conduct such training and the Work that Respondents must perform associated with such training.

II. AUTHORIZATION

- A. Authorized Period: This Authorization is valid immediately for the pyrotechnic device, M116A1 Hand Grenade (DODIC L601), to be used on the MMR Training Ranges.
- B. Respondents and persons operating under their supervision may use the reformulated pyrotechnic device, the M116A1 Hand Grenade (DODIC L601), subject to the following conditions:
1. No more than 1000 of these pyrotechnic devices, M116A1 Hand Grenade (DODIC L601) shall be used within a one year time period.
 2. All metal wires associated with this device will be turned-in as accountable dunnage. This is also specified in the 31 May 2012 M116A1 Hand Grenade Simulator Standard Operating Procedure.
 3. The authorization is conditioned upon compliance with all conditions established by the Environmental Management Commission.
 4. Respondents shall provide EPA with copies of

all documents or reports required by the Environmental Management Commission for consideration.

5. Respondents shall schedule all training activities authorized by this Authorization in a manner that does not interfere with, or slow down, the schedule for completing the investigation and cleanup required under the AOs. If a conflict arises, the investigation and cleanup activities take priority over any training, and training shall be rescheduled. Respondents shall be responsible for communicating and conferring with the Army's Impact Area Groundwater Study Program (IAGWSP) to ensure that the requirements of this paragraph are satisfied. A violation of the requirements of this paragraph may result in modification or withdrawal of this Authorization pursuant to Paragraph II.G.
 6. This authorization is limited to one type of pyrotechnic device, the reformulated M116A1 Hand Grenade only.
- C. The conditions of Paragraph II.B are fully enforceable requirements of the Order and violations of any of the above conditions may be subject to penalties under the Order.
- D. Respondents are responsible for supervising their own personnel, personnel from other agencies, and any contractors or consultants (including other government agencies) that Respondents engage or authorize to conduct any activities utilizing the pyrotechnic M116A1 Hand Grenade (DODIC L601) on the MMR Training Ranges. Respondents shall ensure that all persons conducting activities utilizing this M116A1 Hand Grenade (DODIC L601) at MMR Training Ranges comply with the requirements of this Order, other administrative orders issued by EPA with respect to MMR, and all applicable law. Respondents may be liable and subject to penalties for any violations of this Order, other administrative orders issued by EPA with respect to MMR, or other applicable law, caused by any persons conducting activities at the MMR Training Ranges.
- E. Except as specifically stated in this Authorization, Respondents remain obligated to comply with all the

terms and conditions of the Order.

- F. The TPC or the Regional Administrator may modify or withdraw this Authorization at any time upon twenty-four hours written notice.